| | U | 1 | Document ID | Issue Date | Pages |
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| 1 | ☐ | ☐ | JP 04095287 A | 19920327 | 10 |

| | Title | Current OR |
|---|---|---|
| 1 | **OPTICAL DISK MEMORY** | |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 1 | 369/100 | | TAKAHASHI, AKIRA et al. | ☒ |

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| 1 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | JP 04095287 A | ☐ |

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| 1 | ☐ | ☐ | US 6654331 B1 | 20031125 | 14 |
| 2 | ☐ | ☐ | US 6631108 B1 | 20031007 | 14 |
| 3 | ☐ | ☐ | US 6532201 B1 | 20030311 | 17 |
| 4 | ☐ | ☐ | US 6480463 B2 | 20021112 | 12 |
| 5 | ☐ | ☐ | US 6434087 B1 | 20020813 | 251 |
| 6 | ☐ | ☐ | US 6418097 B1 | 20020709 | 254 |
| 7 | ☐ | ☐ | US 6330210 B1 | 20011211 | 9 |

| | Title | Current OR |
|---|---|---|
| 1 | **Method for accurate positioning of data marks and spaces on an optical disc** | **369/53.34** |
| 2 | **Method for accurate positioning of data marks and spaces on an optical disc** | **369/53.35** |
| 3 | **Copy protection for optical discs** | **369/53.21** |
| 4 | **Method and device for write protecting compact disk media** | **369/290** |
| 5 | **Optical disc system and method for controlling bias coil and light source to process information on a storage medium** | **369/13.02** |
| 6 | **Analog to digital converter assembly for normalizing servo error signals and multiplexing reference voltage inputs and digital outputs and improved optical drive system including same** | **369/44.34** |
| 7 | **Data structure for control information on rewriteable data storage media** | **369/30.11** |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 1 | 369/47.53; 369/53.35 | | Wilson, Carol J. et al. | ☒ |
| 2 | 369/11; 369/30.21 | | Hogan, Josh | ☒ |
| 3 | 369/53.36 | | Hogan, Josh | ☒ |
| 4 | | | Hunter, Charles L. et al. | ☒ |
| 5 | 369/116; 369/53.26 | | Schell, David L. et al. | ☒ |
| 6 | 369/44.35 | | Schell, David L. et al. | ☒ |
| 7 | 369/47.15 | | Weirauch, Charles R et al. | ☒ |

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| 1 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6654331 | ☐ |
| 2 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6631108 | ☐ |
| 3 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6532201 | ☐ |
| 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6480463 | ☐ |
| 5 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6434087 | ☐ |
| 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6418097 | ☐ |
| 7 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6330210 | ☐ |

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| 8 | ☐ | ☐ | US 6317391 B1 | 20011113 | 253 |
| 9 | ☐ | ☐ | US 6278665 B1 | 20010821 | 253 |
| 10 | ☐ | ☐ | US 6266306 B1 | 20010724 | 253 |
| 11 | ☐ | ☐ | US 6243336 B1 | 20010605 | 263 |
| 12 | ☐ | ☐ | US 6236638 B1 | 20010522 | 12 |
| 13 | ☐ | ☐ | US 6236625 B1 | 20010522 | 254 |

| | Title | Current OR |
|---|---|---|
| 8 | Optical disc system having current monitoring circuit with improved bias coil assembly and controller for laser driver and method for operating same | 369/13.17 |
| 9 | Optical disc system including current monitoring circuit assembly having controller with improved optics module and laser driver and method for operating same | 369/13.22 |
| 10 | Analog to digital converter and assembly for use in optical drive system to normalize servo error signals and multiplex reference voltage inputs and digital outputs | 369/44.34 |
| 11 | Optical disc system having servo motor and servo error detection assembly operated relative to monitored quad sum signal and focus capture method for use in same | 369/44.29 |
| 12 | Device to install compact disk media write protect device | 369/290 |
| 13 | Optical disc system having current monitoring circuit with controller for laser driver and method for operating same | 369/13.22 |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 8 | 369/13.26 | | Schell, David L. et al. | ☒ |
| 9 | 369/13.11 | | Schell, David L. et al. | ☒ |
| 10 | | | Schell, David L. et al. | ☒ |
| 11 | 369/44.11; 369/53.28 | | Schell, David L. et al. | ☒ |
| 12 | | | Hunter, Charles L. et al. | ☒ |
| 13 | 369/116 | | Schell, David L. et al. | ☒ |

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| 8 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6317391 | ☐ |
| 9 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6278665 | ☐ |
| 10 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6266306 | ☐ |
| 11 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6243336 | ☐ |
| 12 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6236638 | ☐ |
| 13 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6236625 | ☐ |

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| 14 | ☐ | ☐ | US 6134626 A | 20001017 | 26 |
| 15 | ☐ | ☐ | US 6122232 A | 20000919 | 254 |
| 16 | ☐ | ☐ | US 6091684 A | 20000718 | 250 |
| 17 | ☐ | ☐ | US 6087644 A | 20000711 | 537 |
| 18 | ☐ | ☐ | US 6081501 A | 20000627 | 12 |
| 19 | ☐ | ☐ | US 6069857 A | 20000530 | 256 |
| 20 | ☐ | ☐ | US 6058081 A | 20000502 | 538 |
| 21 | ☐ | ☐ | US 6034364 A | 20000307 | 254 |

| | Title | Current OR |
|---|---|---|
| 14 | Method and apparatus for recording data using multiple buffers | 711/4 |
| 15 | Isolation apparatus for use in disc drive system to mitigate effects of undesired mechanical forces and disc drive system including same | 369/44.11 |
| 16 | Optical disc system and method for changing the rotational rate of an information storage medium | 369/53.3 |
| 17 | Focus capture for optical disc system including detection of quad sum signal to close focus | 250/201.5 |
| 18 | Attachment system for write-protect ring for optical disk | 369/290 |
| 19 | Optical disc system having improved circuitry for performing blank sector check on readable disc | 369/53.28 |
| 20 | Optical drive system having servomotor operated relative to maximum quad sum signal | 369/44.27 |
| 21 | Optical disc system including focus capture assembly with focus error signal circuit and method for operating same | 250/201.5 |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 14 | 711/111; 711/112 | | Inokuchi, Tatsuya et al. | ☒ |
| 15 | 369/44.14 | | Schell, David L. et al. | ☒ |
| 16 | | | Schell, David L. | ☒ |
| 17 | 369/100 | | Schell, David L. | ☒ |
| 18 | | | Hunter, Charles L. et al. | ☒ |
| 19 | 369/44.34; 369/44.35; 369/47.25; 369/53.26 | | Schell, David L. et al. | ☒ |
| 20 | 369/116; 369/44.14; 369/44.25 | | Schell, David L. et al. | ☒ |
| 21 | 369/44.27 | | Schell, David L. | ☒ |

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| 14 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6134626 | ☐ |
| 15 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6122232 | ☐ |
| 16 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6091684 | ☐ |
| 17 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6087644 | ☐ |
| 18 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6081501 | ☐ |
| 19 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6069857 | ☐ |
| 20 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6058081 | ☐ |
| 21 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 6034364 | ☐ |

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| 22 | ☐ | ☐ | US 5974007 A | 19991026 | 250 |
| 23 | ☐ | ☐ | US 5920539 A | 19990706 | 257 |
| 24 | ☐ | ☐ | US 5878015 A | 19990302 | 250 |
| 25 | ☐ | ☐ | US 5875158 A | 19990223 | 531 |
| 26 | ☐ | ☐ | US 5862451 A | 19990119 | 25 |
| 27 | ☐ | ☐ | US 5828054 A | 19981027 | 536 |

| | Title | Current OR |
|---|---|---|
| 22 | Apparatus for moving a carriage assembly from an initial position to a target position | 369/30.16 |
| 23 | Apparatus and method for suppression of electromagnetic emissions having a groove on an external surface for passing an electrical conductor | 369/244 |
| 24 | Laser driver for controlling electrical current passed to a laser in an optical disc system | 369/116 |
| 25 | Servo control system for information storage device | 369/44.34 |
| 26 | Channel quality management in a cable telephony system | 725/116 |
| 27 | Focusing method and system for focus capture and focus control in optical disc system including detection of Quad Sum signal to close focus | 250/201.5 |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 22 | 369/44.28 | | Getreuer, Kurt W. | ☒ |
| 23 | | | Schell, David L. et al. | ☒ |
| 24 | | | Schell, David L. et al. | ☒ |
| 25 | | | Schell, David L | ☒ |
| 26 | 348/192;<br>370/458;<br>455/452.2;<br>455/513;<br>455/62;<br>725/107;<br>725/126;<br>725/127 | | Grau, Alan L. et al. | ☒ |
| 27 | 369/100;<br>369/44.11 | | Schell, David L. | ☒ |

| | C | P | 2 | 3 | 4 | 5 | Image Doc. Displayed | PT |
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| 22 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5974007 | ☐ |
| 23 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5920539 | ☐ |
| 24 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5878015 | ☐ |
| 25 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5875158 | ☐ |
| 26 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5862451 | ☐ |
| 27 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5828054 | ☐ |

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| 28 | ☐ | ☐ | US 5796703 A | 19980818 | 252 |
| 29 | ☐ | ☐ | US 5748578 A | 19980505 | 257 |
| 30 | ☐ | ☐ | US 5729511 A | 19980317 | 544 |
| 31 | ☐ | ☐ | US 5708633 A | 19980113 | 113 |
| 32 | ☐ | ☐ | US 5706047 A | 19980106 | 11 |
| 33 | ☐ | ☐ | US 5677899 A | 19971014 | 537 |

| | Title | Current OR |
|---|---|---|
| 28 | **Apparatus for controlling an electrical current passed to a writing device in an optical storage system** | 369/116 |
| 29 | **Colpitts type oscillator having reduced ringing and improved optical disc system utilizing same** | 369/44.14 |
| 30 | **Optical disc system having servo motor and servo error detection assembly operated relative to monitored quad sum signal** | 369/44.27 |
| 31 | **Method and apparatus for manufacturing information storage devices** | 369/44.11 |
| 32 | **Storage media for an optical information system having an identification code embedded therein** | 347/262 |
| 33 | **Method for moving carriage assembly from initial position to target position relative to storage medium** | 369/44.28 |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 28 | 369/53.26 | | Schell, David L. et al. | ☒ |
| 29 | 331/117R; 331/75; 369/121 | | Schell, David L. | ☒ |
| 30 | 369/116; 369/13.02; 369/13.34; 369/44.29 | | Schell, David L. et al. | ☒ |
| 31 | 359/813; 369/44.14 | | Hollen, Zdenek A. et al. | ☒ |
| 32 | 235/436; 235/462.03; 346/135.1 | | Lentz, Joseph et al. | ☒ |
| 33 | | | Getreuer, Kurt W. | ☒ |

| | C | P | 2 | 3 | 4 | 5 | Image Doc. Displayed | PT |
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| 28 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5796703 | ☐ |
| 29 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5748578 | ☐ |
| 30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5729511 | ☐ |
| 31 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5708633 | ☐ |
| 32 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5706047 | ☐ |
| 33 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5677899 | ☐ |

| | U | 1 | Document ID | Issue Date | Pages |
|---|---|---|---|---|---|
| 34 | ☐ | ☐ | US 5607739 A | 19970304 | 8 |
| 35 | ☐ | ☐ | US 5341360 A | 19940823 | 9 |

| | Title | Current OR |
|---|---|---|
| 34 | **Temperature sensor and method for optical disk** | 428/64.1 |
| 35 | **Method and apparatus for calibrating laser write power by averaging upper and lower knees of a calibration profile** | 369/47.53 |

| | Current XRef | Retrieval Classif | Inventor | S |
|---|---|---|---|---|
| 34 | 369/275.1;<br>369/283;<br>369/288;<br>428/64.2;<br>428/64.4;<br>428/64.8;<br>428/913;<br>430/270.1;<br>430/270.11;<br>430/270.14;<br>430/495.1;<br>430/945 | | Bartholomeusz, Brian J. | ☒ |
| 35 | 369/116;<br>369/53.12;<br>369/53.27;<br>369/53.35 | | Johann, Donald F. et al. | ☒ |

| | C | P | 2 | 3 | 4 | 5 | Image Doc. Displayed | PT |
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| 34 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5607739 | ☐ |
| 35 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | US 5341360 | ☐ |

| L Number | Hits | Search Text | DB | Time stamp |
|---|---|---|---|---|
| 1 | 3026 | akira near1 takahashi | USPAT; EPO; JPO | 2003/12/17 12:18 |
| 2 | 236 | (akira near1 takahashi) and optical adj (disk or disc) | USPAT; EPO; JPO | 2003/12/17 12:19 |
| 3 | 1 | ((akira near1 takahashi) and optical adj (disk or disc)) and seal | USPAT; EPO; JPO | 2003/12/17 12:20 |
| 4 | 1 | ((akira near1 takahashi) and optical adj (disk or disc)) and (recording near2 inhibit$) | USPAT; EPO; JPO | 2003/12/17 12:22 |
| 6 | 5 | (((akira near1 takahashi) and optical adj (disk or disc)) and recording) and detach$ | USPAT; EPO; JPO | 2003/12/17 12:23 |
| 5 | 212 | ((akira near1 takahashi) and optical adj (disk or disc)) and recording | USPAT; EPO; JPO | 2003/12/17 12:52 |
| 7 | 35 | (((akira near1 takahashi) and optical adj (disk or disc)) and recording) and (tetsuya near1 inui) | USPAT; EPO; JPO | 2003/12/17 12:53 |
| 8 | 31 | ((((akira near1 takahashi) and optical adj (disk or disc)) and recording) and (tetsuya near1 inui)) and (ota nea1 kenji) | USPAT; EPO; JPO | 2003/12/17 12:53 |

| L Number | Hits | Search Text | DB | Time stamp |
|---|---|---|---|---|
| 1 | 75833 | optical adj (disk or disc) | USPAT; EPO; JPO | 2003/12/17 13:04 |
| 2 | 230 | (optical adj (disk or disc)) and (power adj calibrat$) | USPAT; EPO; JPO | 2003/12/17 13:05 |
| 3 | 35 | ((optical adj (disk or disc)) and (power adj calibrat$)) and data and ring | USPAT; EPO; JPO | 2003/12/17 13:05 |
| 4 | 1 | | USPAT | 2003/12/17 13:11 |
| 5 | 1 | | USPAT | 2003/12/17 13:11 |
| 6 | 1 | | USPAT | 2003/12/17 13:12 |
| 7 | 1 | | USPAT | 2003/12/17 13:12 |
| 8 | 1 | | USPAT | 2003/12/17 13:12 |

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L1            0 S PROGRAM(2W)CALIBRATION(2W)AREA
L2           42 S POWER(2W)CALIBRATION(2W)AREA
L3           14 S L2 AND DISK
L4           39 S L2 AND DISC
L5            6 S L3 AND DATA AREA
L6            0 S L5 AND RING
L7            0 S L4 AND RING
L8           23 S L4 AND DATA AREA
L9            4 S L8 AND CALIBRAT?(2W)LASER

=> d 15 1-6
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1.  5,721,856, Feb. 24, 1998, Optical **disk** write method; Toshio
Takeuchi, 1/1; 369/32, 58 [IMAGE AVAILABLE]

2.  5,701,282, Dec. 23, 1997, Optical **disk** device capable of
displaying the whole capacity and the reproduction position on the
optical **disk**; Kissei Matsumoto, et al., 369/32, 58 [IMAGE AVAILABLE]

3.  5,617,383, Apr. 1, 1997, Optical **disk** device capable of
displaying the whole capacity and the reproduction position on the
optical **disk**; Kissei Matsumoto, et al., 369/32, 54, 56 [IMAGE
AVAILABLE]

4.  5,561,644, Oct. 1, 1996, Short seeking time optical disc apparatus;
Masamichi Kondo, 369/32, 33, 47, 48, 50, 54 [IMAGE AVAILABLE]

5.  5,537,387, Jul. 16, 1996, Information storage **disk** with display
data recorded in a lead-in region and an apparatus for recording
and/reproducing the disc; Ryo Ando, et al., 369/275.1, 58, 275.3 [IMAGE
AVAILABLE]

6.  5,521,900, May 28, 1996, **Disk** having a lead-in region containing
display data and an apparatus for recording and/or reproducing the disc;
Ryo Ando, et al., 369/275.1, 32, 53, 59, 275.3 [IMAGE AVAILABLE]

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=> d 19 1-4
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1.  5,818,807, Oct. 6, 1998, Optical medium having a test recording area
and method for recording test data thereon; Kazuo Kuroda, et al.,
369/116, 58, 275.3 [IMAGE AVAILABLE]

2.  5,799,212, Aug. 25, 1998, Efficient recording medium; Takashi Ohmori,
710/73; 369/13, 14, 32, 48; 707/100; 710/74 [IMAGE AVAILABLE]

3.  5,737,639, Apr. 7, 1998, Method and apparatus for the recording and
reproducing of data on a storage medium; Takashi Ohmori, 710/73; 369/13,
124, 275.3; 711/4, 100 [IMAGE AVAILABLE]

4.  5,687,397, Nov. 11, 1997, System for expansion of data storage medium
to store user data; Takashi Ohmori, 710/73; 369/13, 14, 32, 48; 707/100;
710/74 [IMAGE AVAILABLE]